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## Re: River Herring Climate Workshop Report: Your Review?

Mon, Sep 17, 2012 at 2:47 PM

To: diane.borggaard@noaa.gov

Hello Diane,

I read the river herring climate change workshop report and had a few comments. For one thing, being a workshop report, I suppose it needs to reflect what was actually said, regardless of how it looks in retrospect. The question to me is where do we go from here?

Overall, there was some good useful info embedded in all of this, especially recent observations on the species themselves and on physical changes to the environment.

Concerning some particular statements:

- p. 12 strange statement: alewives are found at 2 to 12 degrees and at 16 degrees (not inbetween?).
- p. 34 faster growth of alewives in Maine vs. Cape Cod could also be latitudinal countergradient growth, as observed for Menidia and striped bass by Conover et al.
- p. 40 I don't understand Wilson's statement in Hypothesis 1; if rivers are warming quickly, why would the fish be amassing and waiting in estuaries? And is this supposed new behavior?

Nye statement disregards that spawners might miss appropriate river conditions if this phenomenon was pronounced.

- p. 43 Hypothesis 4. I don't understand why warming and SLR would create more river herring habitat in the Southeast. If this counterintuitive statement remains, it should be explained.
- p. 44 Hypothesis 6. I found this section on hybridization to be wildly speculative and is something I would drop altogether. If there was even a hint that this actually occurs in the wild, maybe there'd be a case for it. But there isn't. That there were more "forms" or ecotypes of alosines in the 1800s is not evidence of hybridization.
- p. 45 Hypothesis 7. How can there be "ocean acidification" of a stream?

All in all, I'd focus for the future squarely on two main themes: (1) shifts in riverine and ocean ranges, and (2) shifts in phenologies in rivers and the ocean (and how both are mediated by physical and ecological shifts).

Regards,